

Appl. No. : 09/559,817
Filed : April 25, 2000

REMARKS

The foregoing amendments are responsive to the November 2, 2006 Office Action. Applicant respectfully request reconsideration of the present application in view of the foregoing amendments and the following remarks.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Response to Rejection of Claims 1-27 Under 35 U.S.C. 103(a)

The Examiner rejected Claims 1-27 under 35 U.S.C. 103(a) as being unpatentable over Beyda et al., ("Beyda") U.S. Patent No. 5,935,218 and further in view of Ratner et al. ("Ratner"), U.S. Patent No. 5,684,826. Beyda teaches an Ethernet-type network where all nodes have equal right to access the network (see column 2 at lines 50-51). Claim 1 recites a token-based system wherein all nodes do not have equal right to access the network. The server arbitrates access by passing the token to a node. The node returns access by returning the token to the server. All nodes do not have equal access to the network, as network access is arbitrated by the server.

Neither Beyda nor Ratner teach or suggest broadcasting a lineup insertion packet from the server, the lineup insertion packet comprising an address mask, the server configured to wait for a prescribed time period after broadcasting the lineup insertion packet to allow a second client node to send a lineup insertion response packet to the active server, the second client node sending the lineup insertion response packet if an address of the second client node falls within a range of addresses given by the address mask.

Regarding Claim 1, the cited combination does not teach or suggest network access arbitration by sending a token packet from an active server to a first client node, the token packet granting bus access to the first client node, sending an end of token session packet from the first client to the server, the end of token session packet relinquishing bus access by the first client node, and broadcasting a lineup insertion packet from the server, the lineup insertion packet comprising an address mask, the server configure to wait for a prescribed time period after broadcasting the lineup insertion packet to allow a second client node to send a lineup insertion response packet to the active server, the second client node sending the lineup insertion response

packet if an address of the second client node falls within a range of addresses given by the address mask.

Regarding Claim 2, the cited combination does not teach or suggest the method of Claim 1, wherein the active network server maintains a lineup card that lists one or more client nodes.

Regarding Claim 3, the cited combination does not teach or suggest the method of Claim 1, wherein the token packet specifies a maximum number of packets that the first client can send before sending the end of token session packet.

Regarding Claim 4, the cited combination does not teach or suggest the method of Claim 3, wherein the first client node is allowed to transmit data packets on the network medium only during a token session.

Regarding Claim 5, the cited combination does not teach or suggest the method of Claim 3, wherein the first client node is removed from the lineup card when the node has been inactive for a period of time.

Regarding Claim 6, the cited combination does not teach or suggest the method of Claim 3, wherein the lineup insertion packet requests insertion onto a high priority queue.

Regarding Claim 7, the cited combination does not teach or suggest the method of Claim 1, wherein a presence of a packet is detected by matching a specified preamble and length sequence.

Regarding Claim 8, the cited combination does not teach or suggest the method of Claim 1, wherein access to the medium is provided by a media access control layer.

Regarding Claim 9, the cited combination does not teach or suggest the method of Claim 8, wherein the media access control layer provides a burst mode.

Regarding Claim 10, the cited combination does not teach or suggest the method of Claim 1, wherein the medium provides multiple channels.

Regarding Claim 11, the cited combination does not teach or suggest the method of Claim 1, wherein the medium is a power line.

Regarding Claim 12, the cited combination does not teach or suggest the method of Claim 1, wherein the medium is a radio frequency transmission medium.

Regarding Claim 13, the cited combination does not teach or suggest an active server node, said active server node configured to send a lineup insertion packet containing an address

mask and listen to said network medium for a specified period of time after sending said lineup insertion packet; and at least one client node configured to request insertion onto a lineup card of said active server node by responding to said lineup insertion packet, said active server node configured to provide a token to said at least one client node, said at least one client node configured to transmit on said medium for no more than a specified time period before sending an end of token session packet to said active server node.

Regarding Claim 14, the cited combination does not teach or suggest the network architecture of Claim 13, wherein the active server node maintains a lineup card of active client nodes, the lineup card comprising a high priority queue and a low priority queue.

Regarding Claim 15, the cited combination does not teach or suggest the network architecture of Claim 13, wherein the active server node polls all nodes listed on the high priority queue before polling a next node listed on the low priority queue.

Regarding Claim 16, the Examiner argues that Ratner discloses multiple simultaneous communications over a network to acknowledge information transferred.

Ratner teaches a multipoint communication system, but not a multi-channel system. For example, the Eschelon PLT-10A power line transceiver used in the illustrated embodiment in Ratner is not a multi-channel transceiver but, rather, a direct-sequence spread spectrum transceiver. By contrast, Claim 16 recites transmitting data packets, one packet per channel, and sending acknowledgements on substantially all channels.

Regarding Claim 16, the cited combination does not teach or suggest obtaining a plurality of data packets in a source node, transmitting the data packets, one data packet per channel, to a destination node, receiving a multi-channel acknowledgement from the destination node, the multi-channel acknowledgement transmitted on substantially all of the channels, the multi-channel acknowledgement providing acknowledgement information for each of the channels. Neither Beyda nor Ratner teaches a multi-channel system.

Regarding Claim 17, the cited combination does not teach or suggest a multi-channel network medium, active server means for maintaining a list of active client nodes and arbitrating access to the medium, the active server means providing a token,

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Regarding Claim 18, the cited combination does not teach or suggest the data network of Claim 17, wherein the client node means comprises a multi-channel receiver.

Regarding Claim 19, the cited combination does not teach or suggest the data network of Claim 17, wherein the client node means comprises a single-channel receiver.

Regarding Claim 20, the cited combination does not teach or suggest the data network of Claim 17, further comprising burst mode means for sending unacknowledged data.

Regarding Claim 21, the cited combination does not teach or suggest the data network of Claim 17, wherein the network medium comprises a power line.

Regarding Claim 22, the cited combination does not teach or suggest the data network of Claim 17, wherein the network medium comprises a radio frequency link.

Regarding Claim 23, the cited combination does not teach or suggest the data network of Claim 17, wherein each of the active server prioritizes a plurality of client node means.

Regarding Claim 24, neither Beyda nor Ratner teach or suggest a system with multiple parallel channels. Beyda teaches CSMA/CD (e.g., Ethernet). Ratner does not teach or suggest parallel channels, and the illustrative embodiment described by Rather uses direct-sequence spread spectrum. By contrast, Claim 24 recites a system with multiple parallel channels wherein fragments are sent on parallel channels.

Regarding Claim 24, the cited combination does not teach or suggest sending a plurality of fragments to a destination node on parallel channels, receiving a response indicating which of plurality of the fragments were received and which of the plurality of the fragments that were lost; and resending with fragments that were lost.

Regarding Claim 25, the cited combination does not teach or suggest a processor, a memory operatively coupled to the processor; and a protocol program loaded in the memory, the program configured to receive a token from a server node, the token specifying a maximum number of data packets, hold the token, transmit data packets on the network while holding each token; and return the token to the server node after sending the specified maximum number of data packets.

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Regarding Claim 26, the cited combination does not teach or suggest the network node of Claim 25, wherein the network medium is a power line medium and the network node provides streaming data across the power line medium.

Regarding Claim 27, the cited combination does not teach or suggest the network node of Claim 26, wherein the multimedia data comprises voice data.

Accordingly, Applicants assert that Claims 1-27 are patentable over the prior art, and Applicants request allowance of Claims 1-27.


Summary

Applicant respectfully asserts that Claims 1-27 are allowable over the prior art, and Applicant request allowance of Claims 1-27. If there are any remaining issues that can be resolved by a telephone conference, the Examiner is invited to call the undersigned attorney at (949) 721-6305 or at the number listed below.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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By: 
Lee W. Henderson Ph.D.
Registration No. 41,830
Attorney of Record
Customer No. 20,995
(949) 760-0404

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